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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/732,799

12/11/2003

Barton D. Gaskins

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EXAMINER

HANDY, DWAYNE K

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

03/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/732,799	Applicant(s) GASKINS ET AL.	
	Examiner Dwayne K. Handy	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10,11,14,15,20 and 23-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10,11,14,15,20 and 23-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-8, 10, 11, 14, 15, 20, 23-27, 29, 30, 33, 34-38, 40, 41 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (4,824,939) in view of Slavazza et al. (6,320,025). Simpson teaches a device and process for leaching bone material. The device includes several reaction tanks (2, 10, 18) with each tank having an inlet and outlet, pump, and agitator (Figure 1). The tanks include bone and hydrochloric acid (column 10, lines 5-29). Simpson does not teach a filter tube assembly in the reaction tank. Slavazza teaches a peptide synthesis vessel. The vessel is best shown in Figure 4. The vessel is comprised of a container body (41) closed on both ends by steel plates (42 and 43). Lower steel plate 43 contains a first and second port with filter tubes (48). The tubes are connected to a removal line (49) having a pump (51). Slavazza teaches pore size of the filter and use of Teflon in column 2, lines 55-60. It would have been obvious to one of ordinary skill in the art to combine the filter tube assembly and pore sizes from Slavazza with the tanks of Simpson. Simpson teaches the recovery of bone particles between tanks through use of a separation stage (8, 16, 24). The use of Slavazza's filter assembly would prevent the solid bone particles from leaving the tank and therefore eliminate the separation step to recover the solid bone particles.

4. Claims 31, 32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (4,824,939) in view of Slavazza et al. (6,320,025) and further in view of Wolfinbarger et al. (5,275,954). Simpson and Slavazza, as described above in

paragraph 3, teach every element of claims 31, 32 and 42 except for the use of the polyester mesh and the bone size. Wolfinbarger teaches the use of a polyester mesh in the extraction of dental bone having particle sizes ranging from 250-750 um. The mesh allows for the retaining of the bone fragments during extraction. It would have been obvious to one of ordinary skill in the art to combine the use of the polymer mesh and dental bone from Wolfinbarger with the combined device of Simpson and Slavazza. One would use dental bone to provide large bone particles for extraction. One would use the polymer mesh to retain the bone fragment during extraction as in Wolfinbarger.

5. Claims 28 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (4,824,939) in view of Slavazza et al. (6,320,025) and further in view of Mills et al. (6,613,278). Simpson and Slavazza, as described above in paragraph 3, teach every element of claims 28 and 39 except for the sonicator. Simpson teaches a rotating blade for agitation. Mills teaches a device that is used in the demineralization of bone (column 17, line 64 – column 18, line 12). The device includes a sonicator for mixing (column 7, lines 41-50). It would have been obvious to one of ordinary skill in the art to combine the sonicator from Mills with the combined device of Simpson and Slavazza. Mills teaches that use of ultrasonic energy accelerates solution interpenetration of a porous matrix (column 9, lines 39-55). One would use the sonicator to provide an improvement in mixing over the impeller of Simpson.

Response to Arguments

6. Applicant has amended the claims to include an acid and bone material in the container. This is sufficient to overcome the 102 rejections from the previous Office Action (mailed 8/8/07).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

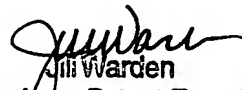
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DKH
January 21, 2008


Jill Warden
Supervisory Patent Examiner
Technology Center 1700